

FIG. 11(a)

FIG. 11(b)

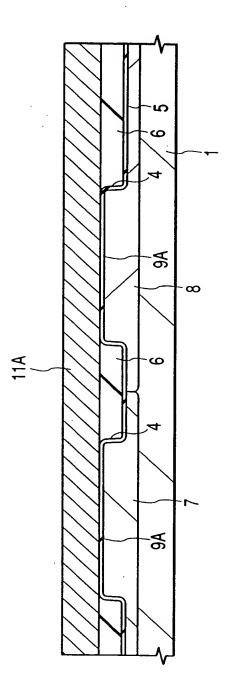
MOISTURE + HYDROGEN GAS MIXTURE

 $P_{\mathbf{W}}$ (partial pressure of moisture)

Ph (Partial Pressure of Hydrogen)

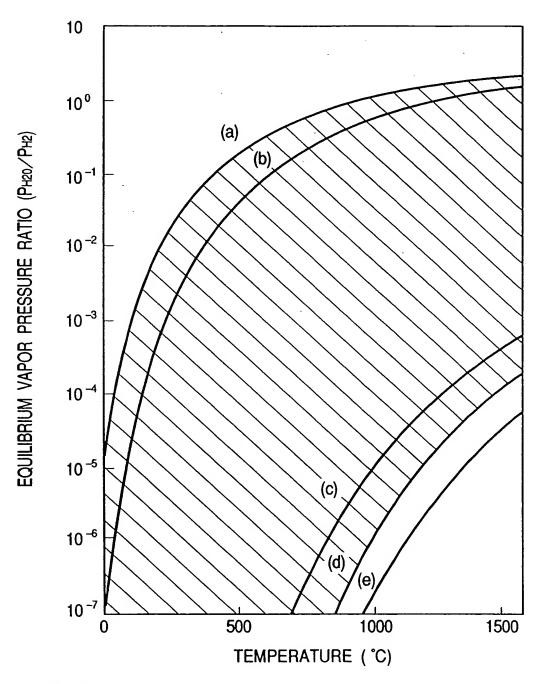
MOISTURE CONCENTRATION = $\frac{P_W}{P_H} \times 100\%$

FIG. 12

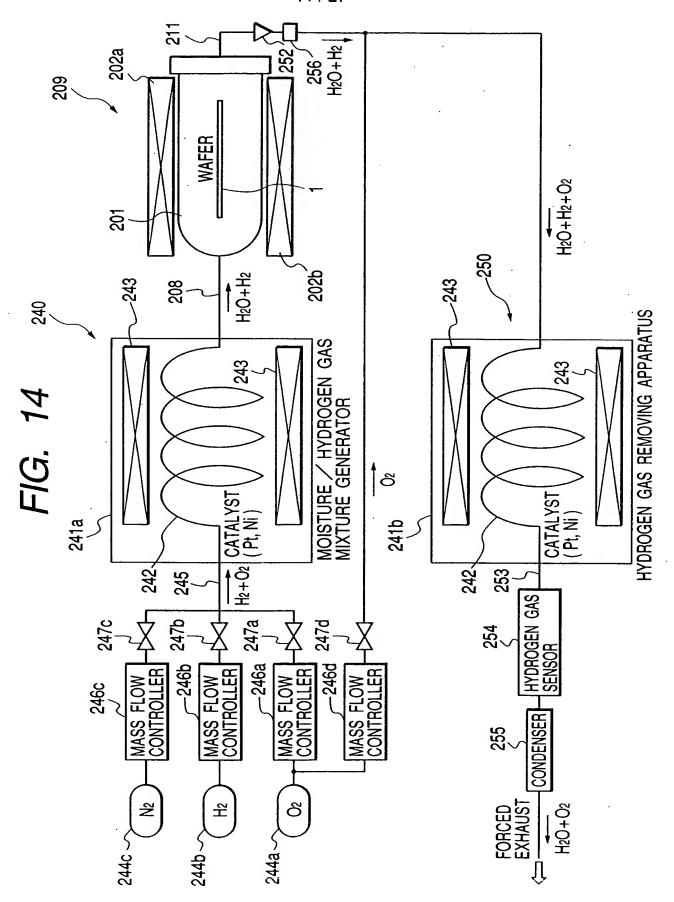


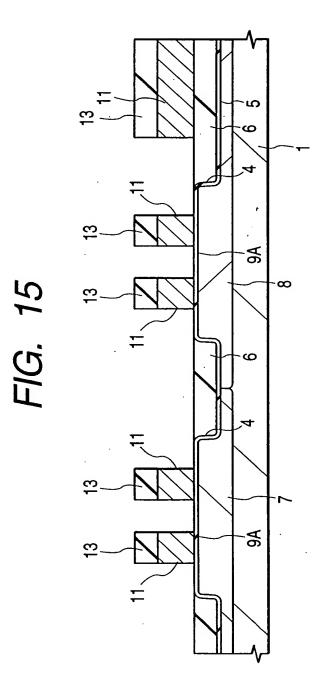
MOISTURE + OXYGEN GAS MIXTURE $F_{w} (FLOW RATE OF MOISTURE)$ $F_{o} (FLOW RATE OF OXYGEN)$ MOISTURE CONCENTRATION = $\frac{F_{w}}{F_{o} + F_{w}} \times 100\%$

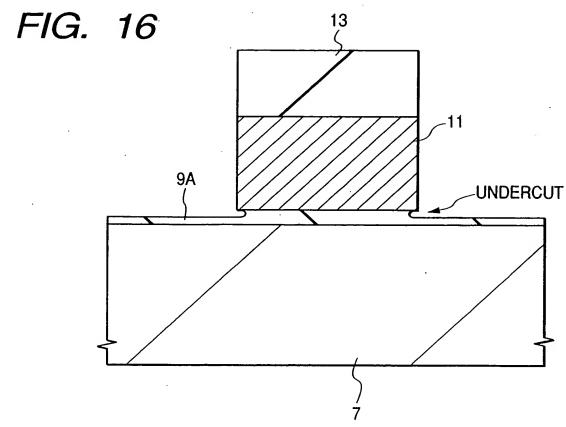
FIG. 13

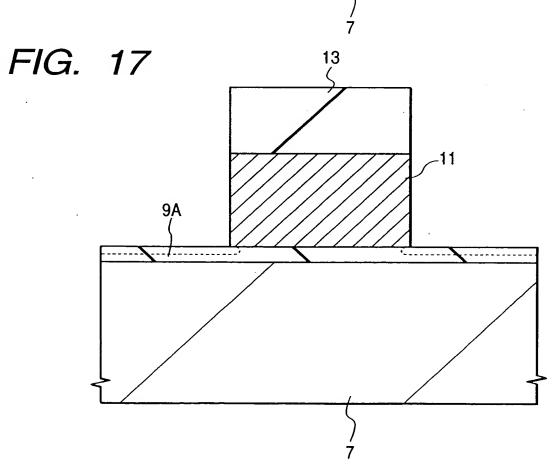


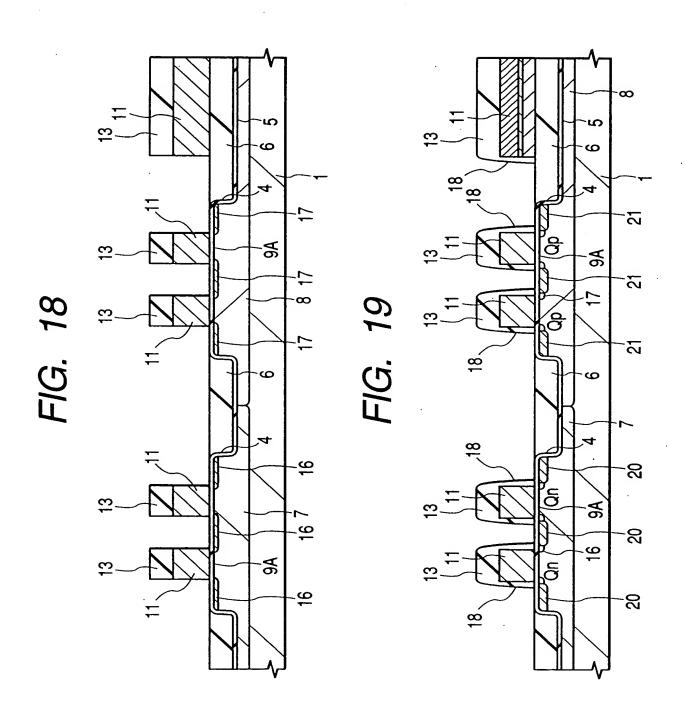
- (a) $W + 3H_2O \implies WO_3 + 3H_2$
- (b) Mo+2H₂O == MoO₂+2H₂
- (c) $2Ta + 5H_2O \implies Ta_2O_5 + 5H_2$
- (d) $Si + 2H_2O \Rightarrow SiO_2 + 2H_2$
- (e) Ti+2H₂O → TiO₂+2H₂

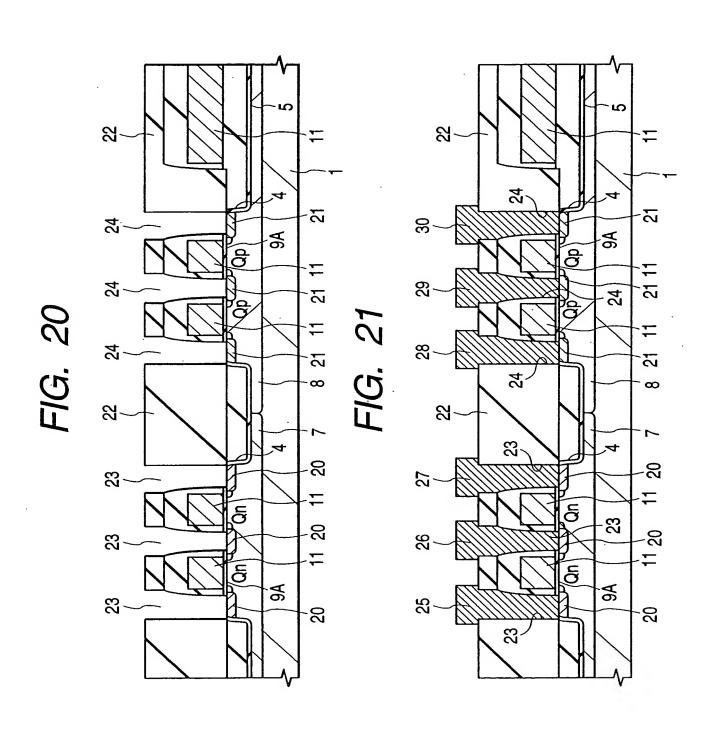












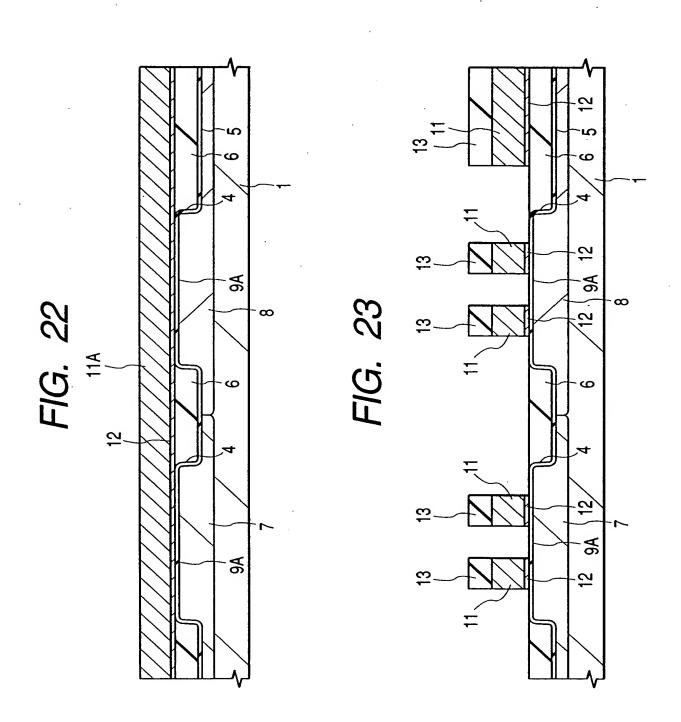


FIG. 24

d₁=EFFECTIVE FILM THICKNESS IN SIO₂ TERMS

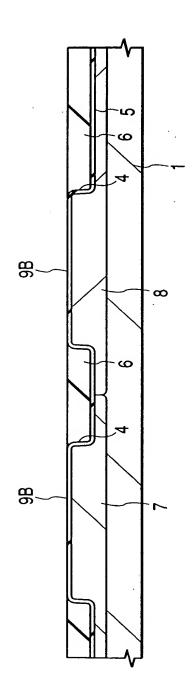
di=THICKNESS OF TARGET INSULATING FILM

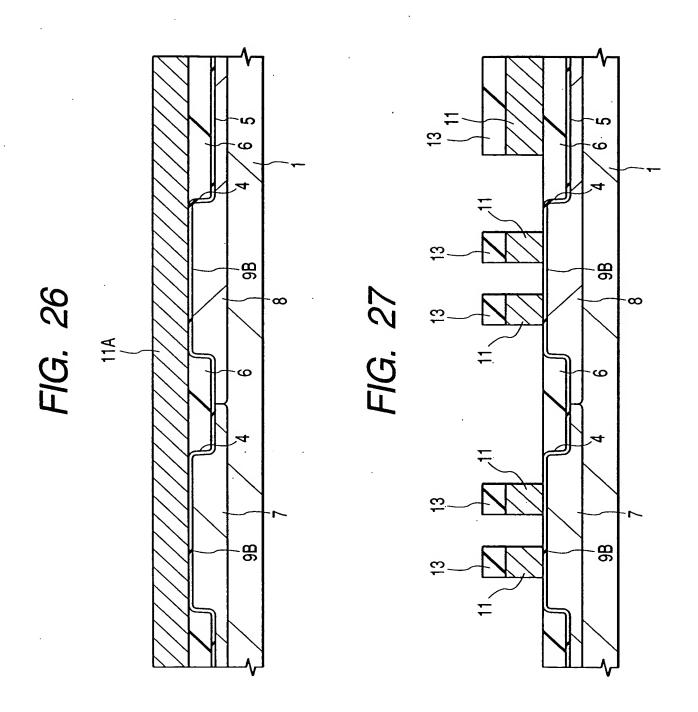
ε_s=DIELECTRIC CONSTANT OF SILICON

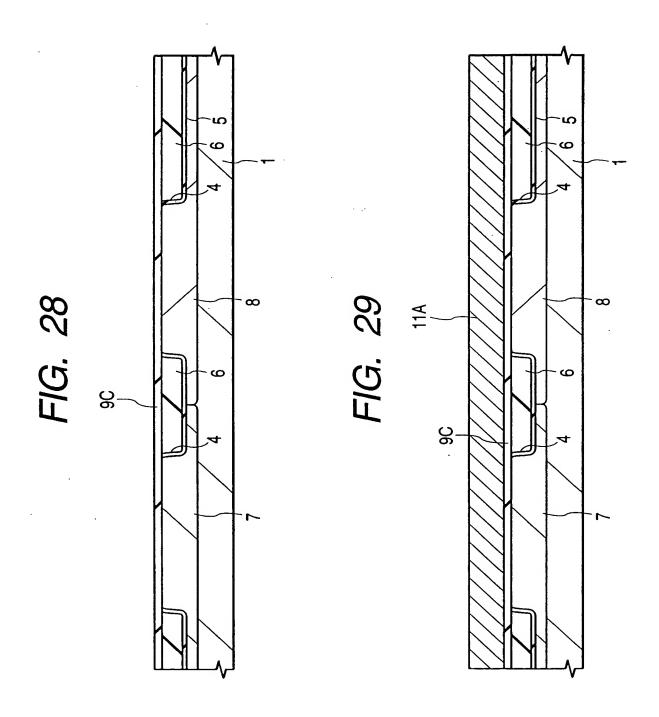
 $d_r = \epsilon_s \frac{d_i}{2}$

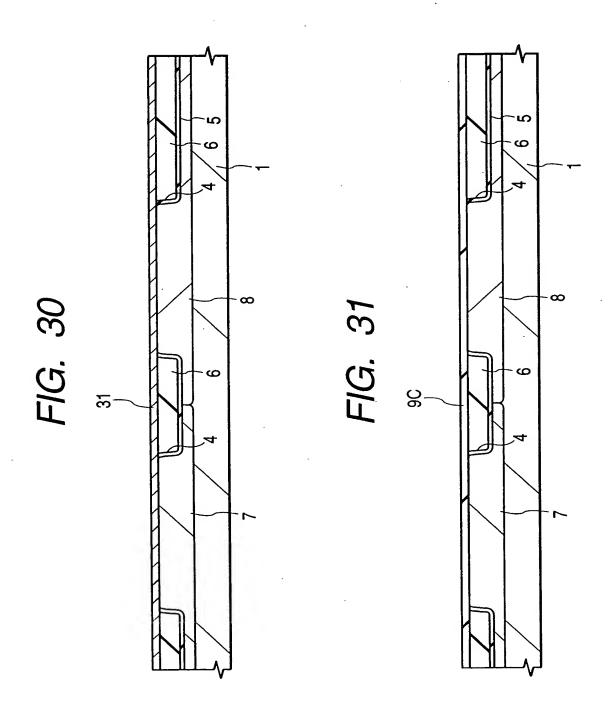
Ei-DIELECTRIC CONSTANT OF TARGET INSULATING FILM

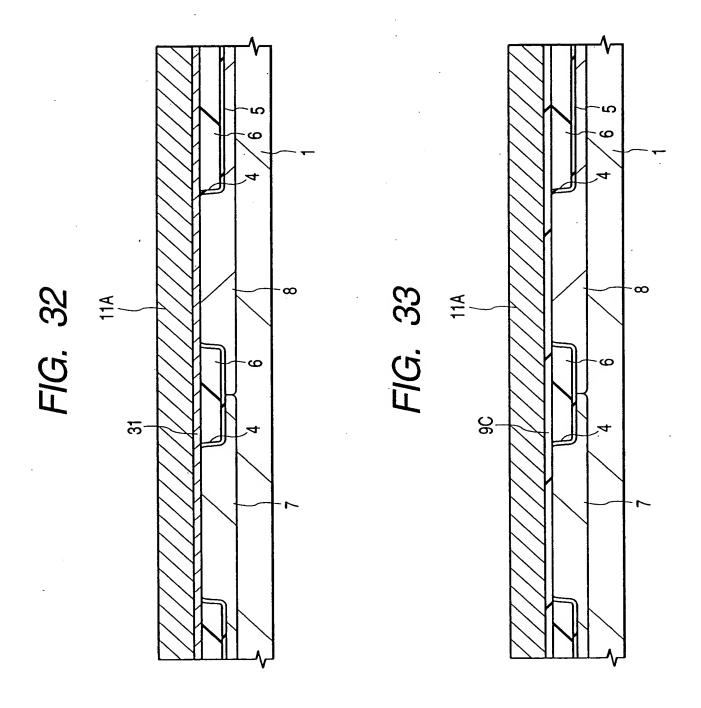
FIG. 25

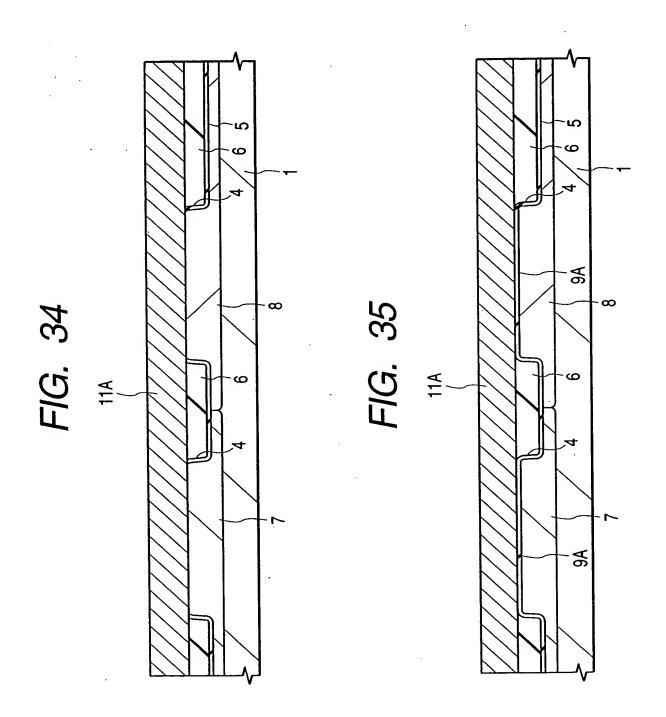


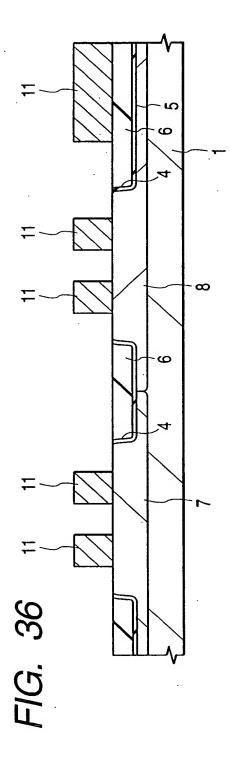












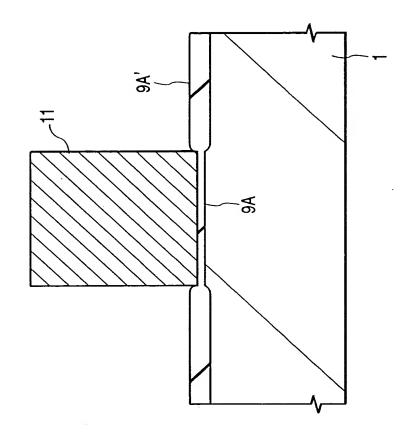


FIG. 37

